ENVIRONMENTAL IMPACT ASSESSMENT

FOR PROPOSED PROSPECTING AND EXPLORATION ACTIVITIES ON EPL 10453, LOCATED IN THE FRANSFONTEIN–KHORIXAS AREA, KUNENE REGION, NAMIBIA

ENVIRONMENTAL MANAGEMENT PLAN

FINAL VERSION

ECC APPLICATION: 006298

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1. INTRODUCTION

The proposed prospecting and exploration activities on EPL 10453, located north-east of Khorixas and west of Fransfontein in the Kunene Region, have the potential to interact with both the biophysical and socio-economic environment. In accordance with the Environmental Management Act (2007) and its Regulations (2012), an Environmental Management Plan (EMP) has been developed to guide the proponent in managing, monitoring, and mitigating environmental impacts throughout the project lifecycle.

The EMP sets out the framework for:

- Preventing negative environmental impacts where possible;
- Minimising or reducing unavoidable impacts to acceptable levels;
- Ensuring compliance with national legislation and good industry practices;
- Promoting environmental protection throughout exploration activities; and
- Avoiding long-term environmental degradation beyond the exploration footprint.

This EMP describes the project area, identifies potential environmental sensitivities, and outlines the organisational arrangements, roles, procedures, and monitoring requirements necessary to ensure effective environmental management during planning, construction, operation, and decommissioning of exploration sites.

The spatial location of EPL 10453 is illustrated in Figure 1, providing context for nearby settlements, access routes, and environmental features relevant to project planning.

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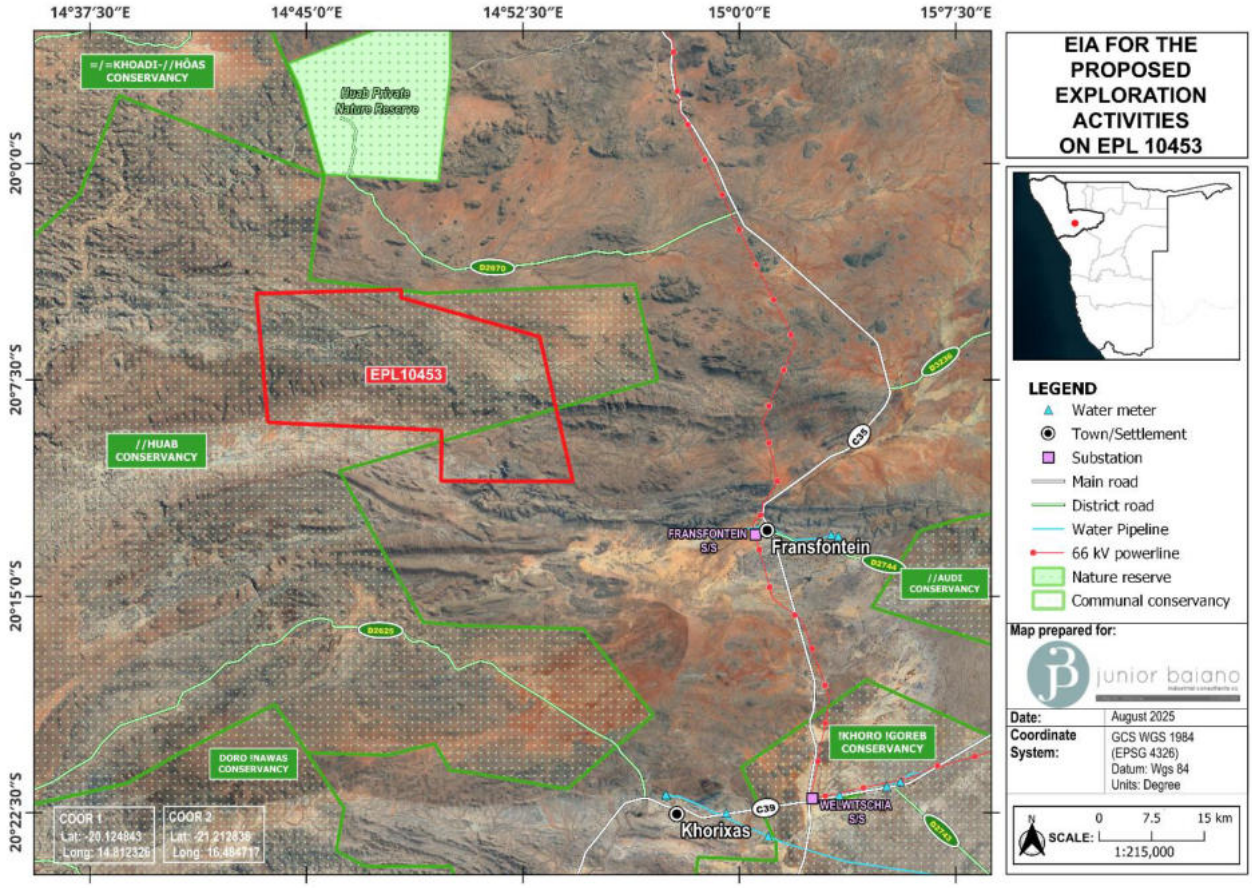

Figure 1-1: Location of EPL 10453

1.1 EMP ADMINISTRATION

There is a strong need to clearly outline the roles and responsibilities of all stakeholders to ensure that the EMP is fully implemented. There is also a need for the proponent to appoint an overall responsible person (project manager) to ensure the successful implementation of the EMP as highlighted below.

Table 2-1: Roles and Responsibilities in EMP Implementation

ROLE	ENVIRONMENTAL RESPONSIBILITIES
Desert Springs	Responsible to enforce EMP implementation to contractors
Environmental Control Officer	• Implement, review and update the EMP. • Ensure all reporting and monitoring required under EMP is undertaken, documented and distributed as needed • Conduct environmental site training (tool box talks) and inductions with the support of an environmental consultant. • Conducts environmental audit at work site with the support of environmental consultant. • Close out all non-conformances.

ROLE	ENVIRONMENTAL RESPONSIBILITIES
	• Ensure materials being used on site are environmental friendly and safe.
The Department of Environmental Affairs	• Approve the EMP and any amendments to the EMP. • Approve reports of environmental issues and non-conformances as issued. • Review and approve environmental reports submitted as part of EMP implementation
Environmental Consultant	• Conduct and monitor actions required by the EMP if required • Conduct environmental site training (tool box talks) and inductions if assistance is required • Conducts environmental audit at work site • Ensure materials being used on site are environmental friendly and safe.
Site Technical Team	• Control and monitor actions required by the EMP. • Report all environmental issues to Environmental Control Officer. • Ensure documented procedures are followed and records kept on site. • Ensure any complaints are passed onto the management within 24 hours of receiving the complaint.
Workers	• Follow requirements as directed by site technical. • Report any potential environmental issues to site engineer/project manager, indicating spilt oil, excess waste, excessive dust generation, dirty water running off the site and other possible non-conformances

1.2 EMP Management Actions

The management actions aim to avoid potential impacts where possible. Where impacts cannot be avoided, management actions are outlined in order to minimize the significant impacts.

The tables below outline the specific management actions which need to be undertaken during the construction and operational phase of the development to ensure that the site activities are compliant.

2. CONSTRUCTION AND OPERATIONAL PHASE MANAGEMENT ACTIONS

The table below outlines the management actions to be undertaken during the construction and operation phase of the project to ensure compliance with the EMP.

Table 2-1: Construction and Operation EMP

Impact	Description	Effects	Class	Time frame	Responsibility	Action	Phase
Noise pollution	• Noise will be generated through: • Exploration activities - Moving vehicles and machinery.	• The health of working personnel could be disturbed. • Community residents could be disturbed by the noise. • General annoyance - Driving away of local animals' species near • the project site	Environmental	Construction and operation	• Environmental Control Officer • Site Manger	• Workers will be issued earplugs to protect them from excessive noise. - Public will be notified through printed timetable stating planned operational activities. • Where feasible exploration activities will be conducted during daytime. • Site notices will be erected on, around the site-notifying visitors, and nearby residents of different hazards on site. - No go areas marked as sensitive environments, especially for birds needs to be avoided during construction and operation.	**Construction & Operation**
Dust Generation	Dust will accumulate because of the land preparation, onsite movements of vehicles and machines, wind blowing on loose material.	• Can lead to respiratory illnesses especially to those working in the area. • General air pollution.	Environmental	Construction and operation	• Environmental Control Officer • Site Manager	• Dust suppression will be done through watering dust sources surfaces. • Watering down dusty surfaces, • Ensure that protective equipment such as respirators are distributed to	**Construction & Operation**

Impact	Description	Effects	Class	Time frame	Responsibility	Action	Phase
		• Nuisance to nearby residents • The process can also drive away wild animals within the project area surroundings				employees, and ensure their use. • Site notices to be erected on and around the site to inform visitors and surrounding residents.	
Excavations, Steep slopes and unprotected areas	• Exploration activities may result in ground excavations during extraction of samples	Unprotected excavation are a safety hazard for those in the project area as well as animals	Safety	Construction and operation	• Environmental Control Officer • Site Manager	• Ensure all dangerous areas are protected and barriers put in place. • All disturbed areas are to be rehabilitated to ensure public safety	**Construction & Operation**
Loss of Biodiversity	• Vegetative plants on site will be removed • Habitat destruction for both ground dwelling species and tree dwelling species. • Soil disturbance on and around the site.	• The clearing of vegetation will result in the breaking of the ecosystem processes in the area. • Loss of aesthetic value of the proposed project area. • The few small animals still habiting the place such as small	Environmental	Construction and operation	• Environmental Control Officer • Site Manager	• Ground disturbance will only be limited to the boundary area to avoid affecting a large area. • Upon completion of exploration works activities rehabilitation of the exploration footprint affected area is recommended. A rehabilitation expert can be engaged.	**Construction & Operation**

Impact	Description	Effects	Class	Time frame	Responsibility	Action	Phase
		rodents and birds will be forced away.					
Bush fires	In areas that have vegetative cover bush fires may arise	This may cause property damage as well affect habitats of any animals that dwell in and round the project area	Environmental	Construction and operation	• Environmental Control Officer • Site Manager	• Where necessary construction of fire breaks • Carry out awareness programmes on prevention of fire	**Construction & Operation**
Greenhouse gas emissions	Green House Gasses (GHGs) emissions will be produced from the following activities: • Fuels combustion for (machinery, vehicles and equipment) • Ground excavation releases releases particulate matter into the atmosphere.	• Global climate change • Air pollution	Environmental	Construction and operation	• Environmental Control Officer • Site Manager • Department of Environmental Affairs.	• Adopt the use of ethanol blended fuels wherever necessary. • Design an operation system that cuts on fuel consumption. • Use of solar energy system for lighting and other minor energy needs.	**Construction &Operation**

Impact	Description	Effects	Class	Time frame	Responsibility	Action	Phase
Waste Generation	• Construction and operation are associated with a lot of raw material and activities that results in pollution	• Pollution from oil spills resulting from the handling of various machineries used • Construction rubble, empty packaging containers/bags and materials remnants.	Environmental	Construction and operation	• Environmental Control Officer • Site Manager	• Ensure that all waste from exploration activities is stored and contained in designated containers and transported to an approved waste disposal site. • Visual inspections monitoring	**Construction &Operation**
Safety and Health risks	Construction related Safety and Health hazards	Injuries to workers such as Occupational dermatitis, slips and fall of humans and objects, musculoskeletal disorders, etc.	Health and safety	Construction and operation	ECO	• Equip workers with Personal Protective Equipment (PPE), provide trainings on how to effectively use the PPE. • Provide platforms for briefings and meetings about possible safety and health hazards in the work place • Provide site signs warning and informing about different hazards on site. • Safety signs during construction and operation should be put on site, no go areas should be labelled, PPE specifications should be clear to maintenance personnel.	**Construction and operation**

Impact	Description	Effects	Class	Time frame	Responsibility	Action	Phase
Land use change	There will be change in land use and visual aesthetics	• The area will no longer be suitable for agriculture. • Sudden change in landscape appearances may be unfavourable to the conservatives.	• Social • Terrestrial environment	Permanent	• Environmental Control Officer • Site Manager	• The area is to be rehabilitated after exploration activities in order to ensure that it is in state that is useful for the local community.	Construction and operation
Positive Impacts							
Employment creation	The development provides an opportunity of outsourcing work	• Improves disposable income to those employed and their immediate families.	Socio-economic	Project life time	Site Manager	Work with local leadership (councillor) on acquiring non-skilled labour from the residents.	Construction and operation
Business linkages	Raw materials acquiring and contracting companies provide an opportunity for businesses.	• Local suppliers will be presented with an opportunity to empower their businesses. • Construction workers can be provided with accommodation, food and services from the local	Socioeconomic	Construction and operation	Site Manager	The proponent will outsource most of its materials and services from surrounding areas in the region.	Construction and operation

Impact	Description	Effects	Class	Time frame	Responsibility	Action	Phase
		community increasing business activities.					
Potential mineral resource utilisation	The development presents an opportunity for establishing viability of mining. This promotes enhanced knowledge in the area's economic resources and potential activities that may be undertaken in the area	• Development will facilitate economic growth and will also pave way for future developers to grow interests in the area and result in ripple effects and quick growing of the area.	Socioeconomic	Construction and operation	Site Manager	Ensure exploration work is comprehensive and thorough in order to ensure as much information as possible is captured for planning purposes.	Construction and operation

1.3 ENVIRONMENTAL MONITORING PLAN

Environmental monitoring is an essential component of the Environmental Management Plan (EMP) and is required to ensure that mitigation measures are effectively implemented throughout all phases of the exploration programme. Continuous monitoring allows the proponent to detect emerging issues early, verify compliance with legal and EMP requirements, and respond proactively to environmental risks that may not have been anticipated during the assessment stage. All monitoring observations, survey records and corrective actions must be documented and retained as part of the project's compliance reporting.

Before any exploration site preparation begins, the proponent and appointed contractors must develop a detailed Environmental Monitoring Plan outlining:

- placement of temporary camps and ablution facilities;
- locations of laydown areas and storage sites;
- waste management procedures;
- dust and noise management measures;
- traffic and access-control arrangements;
- spill-prevention systems;
- seasonal activity scheduling based on climatic conditions.

The plan must be endorsed by the Environmental Control Officer (ECO) and submitted to the Competent Authority as part of ongoing compliance with the Environmental Management Act (2007).

During exploration, the ECO (or appointed environmental practitioner) will implement a monitoring programme based on the EIA findings, EMP requirements, licence conditions and site-specific sensitivities identified during baseline surveys. The core monitoring elements applicable to EPL 10453 include:

Vegetation and Site Clearance Control

- Monitoring must confirm that:
- No protected trees or flagged vegetation are disturbed;
- Vegetation clearing is limited strictly to drill pads, temporary access routes and operational areas;
- Large areas of soil are not unnecessarily exposed, thereby reducing erosion risks.

Rehabilitation of Disturbed Areas

- Drill pads, tracks and temporary storage areas must be reshaped, ripped and re-vegetated where required.
- Any unstable or potentially hazardous sites must be stabilised and protected.

Surface Drainage and Runoff Management

- Particular attention must be given after rainfall events to ensure that:
- drainage lines remain unobstructed;
- no ponding, uncontrolled runoff or sediment mobilisation occurs;
- drill sites do not channel runoff into sensitive drainage features.

Compliance with Approved Site Layouts

- Daily or weekly ECO inspections must verify that all exploration activities remain within authorised zones and that no unauthorised new tracks, detours or expansions occur.

Spill Prevention and Clean-up

- Any fuel, oil or chemical spills must be cleaned immediately and recorded.
- Spill kits must be available at all drill pads, fuel storage points and workshop areas.
- Contaminated soil must be removed to an approved disposal facility.

Solid Waste Management

- Monitoring shall ensure that:
- waste is stored in covered, secured containers;
- no waste is buried, burned or dumped on-site;
- all waste is removed to a licensed landfill or disposal site;
- hazardous waste is handled only by licensed service providers.

Dust and Noise Control

- Dust suppression measures (e.g., controlled vehicle speeds, water spraying where feasible) must be implemented.
- Noise levels should remain within acceptable limits, particularly near farmsteads or livestock areas.

2 CONCLUSION AND RECOMMENDATIONS

The Environmental Impact Assessment (EIA) for the proposed prospecting and exploration activities on EPL 10453, located in the Khorixas District of the Kunene Region, has been undertaken in full compliance with the Environmental Management Act (EMA) No. 7 of 2007 and the EIA Regulations of 2012. All relevant sectoral legislation—particularly relating to environmental protection, water resources, heritage protection, biodiversity management, occupational health and safety, and land-use—was considered throughout the assessment process.

The EIA evaluated the biophysical, socio-economic, ecological, heritage and land-use conditions of the project area and assessed potential impacts arising from exploration activities such as drilling, sampling, limited vegetation clearing, access creation, and temporary site establishment.

Overall, the findings show that:

- The proposed exploration footprint is small, temporary and reversible, with no permanent infrastructure expected during this phase.
- Most negative impacts are site-specific, low to moderate in significance, and can be effectively managed through strict adherence to the Environmental Management Plan (EMP).
- No protected areas, conservancies, critical habitats, cultural heritage sites, or sensitive biodiversity zones are located inside the EPL.
- The area has low settlement density, and thus low potential for major social displacement or conflict.
- The public consultation process—conducted through site notices, newspaper advertisements, direct engagement with local authorities, and registration of Interested and Affected Parties—did not identify any fatal flaws or objections that prevent the project from proceeding.

Despite these favourable conditions, several manageable environmental sensitivities were identified, including ephemeral drainage lines, rocky outcrops, woodland patches, and potential chance heritage finds. These are fully addressed through targeted mitigation measures in the EMP.

Positive impacts include:

- Employment opportunities
- Local procurement and service utilisation in Khorixas and nearby farms
- Knowledge generation on mineral potential
- Potential long-term economic contribution if viable deposits are identified

Negative impacts, where present, relate mainly to:

- Soil disturbance and erosion risk
- Localised vegetation clearance
- Dust and noise during drilling
- Possible groundwater contamination if drilling is poorly managed
- Chance finds of heritage resources
- Minor health and safety risks

With correct mitigation, these impacts reduce to low or negligible significance.

Based on the findings of the Environmental Assessment, it is concluded that:

- The proposed exploration activities on EPL 10453 pose no significant or irreversible environmental risks, provided that all mitigation and management measures outlined in the EMP are fully implemented.
- There are no environmental, ecological, heritage, or socio-economic fatal flaws that prevent the project from proceeding to the exploration stage.
- With proper monitoring, responsible conduct, and strict adherence to the EMP, the environmental impacts of the project can be minimized to acceptable national standards.

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3 REFERENCES

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APPENDICES

Appendix A: Public Consultation Documents

1. Background Information Document
2. Newspaper Adverts
3. Site Notice
4. Meeting Attendance Register
5. Meeting Presentation
6. Questionnaires

Appendix B: Site Information

1. EPL Ownership

2. Locality Map

Appendix C: Consultancy Team resumes